

## Electrical Licensing and Inspection

### SERVICE LATERALS - WARNING RIBBON REQUIREMENTS

Section 300-5(d) was revised in the 1999 National Electrical Code® by adding a new paragraph that requires a warning ribbon to identify the location of service laterals. Service laterals that are not encased in concrete and that are buried 18 inches or more below grade are required to have their location identified by a warning ribbon that is placed in the trench at least 12 inches above the service lateral.

As noted in the 1998 NEC® Committee Report on Proposals, the substantiation for such requirement is to provide a warning for persons making excavations in the vicinity of deep service installations where there often is no physical protection for the conductors and where there is no overcurrent protection on the supply end of the conductors. A warning ribbon is not required where service laterals are buried less than 18 inches deep and would usually be installed within a suitable raceway. It is recognized that for such installations the effectiveness of a warning ribbon would be minimized if the excavation would reach the electrical installation and the ribbon at the same time.

Section 300-5(d) is intended to apply only to 'service laterals' that are connected to the customer-owned electrical equipment and wiring on the premises side of the 'service point'.

- It does not apply to utility-owned installations on the serving-utility side of the 'service point'.
- It literally does not apply to 'underground service-entrance conductors' although such underground service-entrance conductors could be subject to the same degree of hazard.
- It does not apply to feeders and branch circuits since they are generally provided with overcurrent protection.

*NEC® Definition of Service Lateral - The underground service conductors between the street main, including any risers at a pole or other structure or from transformers, and the first point of connection to the service-entrance conductors in a terminal box or meter or other enclosure, inside or outside the building wall. Where there is no terminal box, meter, or other enclosure, the point of connection shall be considered to be the point of entrance of the service conductors into the building.*

*NEC® Definition of Service Point - The point of connection between the facilities of the serving utility and the premises wiring.*

*NEC® Definition of Service-Entrance Conductors, Underground System. The service conductors between the terminals of the service equipment and the point of connection to the service lateral.*

Summary - Warning ribbons are required for service lateral installations on the premises side of the service point in accordance NEC® Section 300-5(d). Service laterals that are not encased in concrete and that are buried 18 inches or more below grade are required to have their location identified by a warning ribbon. This requirement applies to all approved wiring methods including raceways or direct buried cables. The warning ribbon is required to be located at least 12 inches above the electrical installation. The warning ribbon is required for all types of installation methods, including but not limited to, open trench, plowing, and directional boring methods.